PH-AAA-322

# THE ECONOMICS OF CORN BORER CONTROL IN THE PHILIPPINES

by

F.F. Sanchez

Paper presented at the 7th Inter-Asian Corn Improvement Workshop,
UPCA, College, Laguna, Philippines, January 11-16, 1971

# The Economics of Corn Borer Control in the Philippines[1]

F. F. Sanchez[2]

The corn borer, Ostrinia furnacalis (Guenee) is one of the limiting factors affecting corn production in the country. It has been estimated that from 20-80% of the crop could be lost due to this insect pest.

The planting of high-yielding corn varieties has focused attention to the need for a reliable method of pest control as a form of crop insurance. Though there are several materials recommended locally for corn borer control as a result of insecticidal evaluations since the mid-1950's, the economics of their use has not been looked into.

Assuming a yield potential of 80 cavans of shelled corn for the better-managed farms, and further assuming that the above loss estimate is valid, one stands to lose from 16-64 cavans per hectare if he does not control the borers. An economic analysis of the use of the best insecticide in current use (endrin) on a high-yielding corn variety (UPCA Var 1) would help put matters on a more realistic plane. From our 1969 experiment, we obtained a yield of 81 cavans shelled corn with 2% endrin granules at 1 kg a.i./ha. applied once during the season and 56 cavans for the control, giving a 25-cavan difference which could reasonably be attributed to the control of the borers. The increase in yield is worth ₱432 based on a selling price of ₱0.32/kilogram of shelled corn and 54 kilograms to a cavan. The cost of treatment amounts to ₱100 per hectare (from 50 kg of the 2% endrin granules at ₱2/kilogram). The benefit-cost ratio, obtained by dividing the value of the yield increase with the cost of the insecticide, was 4.32 to 1 or a return of ₱4.32 for every ₱1.00 invested on insecticide. This rate of return is relatively high and points to the importance of instituting control measures against the corn borer under our particular condition.

---

[1] Paper to be presented at the Seventh Inter-Asian Corn Improvement Workshop, U. P. College of Agriculture, College, Laguna, Philippines, January 11-16, 1971.

[2] Assistant Professor and Chairman, Department of Entomology, U. P. College of Agriculture, College, Laguna, Philippines.

A national program of systematized economic analysis of corn borer control is called for in order to develop a better foundation in making chemical control recommendations in order to maximize return from the investment.

Many factors may enter into the pictures such as kind of chemical used, location, variety, fertilizer input, etc., which may all be important in the determination of the amount of benefit that can be had from an insecticidal treatment. More work is clearly indicated in this much neglected area.

-ooOoo-